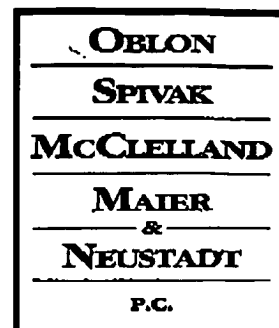


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ATTORNEYS AT LAW

I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Date: November 10, 2004Signature: 

Attorney

To: Examiner: Karl E. GroupTelephone Number: 571-272-1368Group Art Unit: 1755Facsimile No.: 703-872-9306From: Akihiro YamazakiRegistration No.: 46,155Telephone Number: 703-413-8097Date: November 10, 2004RE: U.S. Application Serial Number: 10/069,943Filed: July 10, 2002Attorney Docket Number: 219289US90PCTTOTAL NUMBER OF PAGES INCLUDING THIS PAGE: 10COMMENTS

Pursuant to our previous telephone communications, we have filed a Supplemental Amendment prepared based on our discussions. Attached herewith, please find a Courtesy Copy of the Supplemental Amendment and the filing papers filed yesterday along with the date-stamped filing receipt. If you have any questions, please contact me at any time at 703-413-8097.  
Thank you.

In the event that any fees are due, including any fees required under 37 CFR 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge the required fees to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 CFR 1.136 for the necessary extension of time.

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1940 DUKE STREET ■ ALEXANDRIA, VIRGINIA 22314 ■ U.S.A.  
TELEPHONE: 703-413-3000 ■ FACSIMILE: 703-413-2220 ■ WWW.OBLON.COM

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**COURTESY  
COPY**OSMM&N File No. 219289US90PCTDept.: E/MBy: MM/AY/fmSerial No. 10/069.943In the matter of the Application of: Yasutaka ITO, et al.For: CARBON-CONTAINING ALUMINUM NITRIDE SINTERED COMPACT  
AND CERAMIC SUBSTRATE FOR USE IN EQUIPMENT FOR  
MANUFACTURING OR INSPECTING SEMICONDUCTORDue Date: 11-9-04

The following has been received in the U.S. Patent Office on the date stamped hereon:

- Credit Card Form for \$320.00
- Dep. Acct. Order Form
- Cover Sheet
- Supplemental Amendment
- Petition for Extension of Time (a second month)



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<b>Credit Card Type:</b> <input checked="" type="checkbox"/> American Express	
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<b>Name as it Appears on Credit Card:</b> Matsui, Fumiko	
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<b>Signature:</b> <i>Fumiko Matsui</i>	<b>Date:</b> November 9, 2004
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<b>Street Address 2:</b> 1940 Duke Street	
<b>City:</b> Alexandria	
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<b>Country:</b> U.S.A.	
<b>Daytime Phone #:</b> (703) 413-3000 Accounting Dept.	<b>Fax #:</b> (703) 413-2220
<b>Description of Request and Payment Information:</b> EXTENSION OF TIME (A SECOND MONTH)	
<b>Application No.:</b> 10/069,943	
<b>Patent/Registration No.:</b>	
<b>Docket No.:</b> 219289US	

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Docket No. 219289US90PCT

IN RE APPLICATION OF: Yasutaka ITO, et al.

SERIAL NO: 10/069,943

FILED: July 10, 2002

FOR: CARBON-CONTAINING ALUMINUM NITRIDE SINTERED COMPACT AND CERAMIC SUBSTRATE FOR  
USE IN EQUIPMENT FOR MANUFACTURING OR INSPECTING SEMICONDUCTORCOMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Transmitted herewith is a Supplemental Amendment in the above-identified application.

- ☐ No additional fee is required
- ☐ Small entity status of this application under 37 C.F.R. §1.9 and §1.27 is claimed.
- ☒ Additional documents filed herewith: Request for Extension of Time (a second month)

The Fee has been calculated as shown below:

CLAIMS	CLAIMS REMAINING		HIGHEST NUMBER PREVIOUSLY PAID	NO. EXTRA CLAIMS	RATE	CALCULATIONS
TOTAL	7	MINUS	28	0	x \$18 =	\$0.00
INDEPENDENT	1	MINUS	5	0	x \$88 =	\$0.00
		<input type="checkbox"/> MULTIPLE DEPENDENT CLAIMS			+ \$300 =	\$0.00
		TOTAL OF ABOVE CALCULATIONS				\$0.00
		<input type="checkbox"/> Reduction by 50% for filing by Small Entity				\$0.00
		<input type="checkbox"/> Recordation of Assignment			+ \$40 =	\$0.00
		TOTAL				\$0.00

- ☐ A check in the amount of \$0.00 is attached.
- ☒ Credit card payment form is attached to cover the fees in the amount of \$320.00
- ☒ Please charge any additional Fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.
- ☒ If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time may be charged to Deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.

OBLON, SPIVAK, MCCLELLAND,  
MAIER & NEUSTADT, P.C.

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(OSMMN 05/03)

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NOV 10 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

Yasutaka ITO et al

: GROUP ART UNIT: 1755

SERIAL NO.: 10/069,943

: EXAMINER: GROUP, K

FILED: July 10, 2002

:

FOR: CARBON-CONTAINING ALUMINUM NITRIDE  
SINTERED COMPACT AND CERAMIC SUBSTRATE  
FOR USE IN EQUIPMENT FOR MANUFACTURING  
OR INSPECTING SEMICONDUCTOR

SUPPLEMENTAL AMENDMENT

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Supplemental to the Response filed October 12, 2004, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 4 of this paper.

Application No. 10/069,943  
Reply to Office Action of June 9, 2004

**IN THE CLAIMS**

Please amend the claims as follows:

Claims 1-36 (canceled)

Claim 37 (currently amended): A carbon-containing aluminum nitride sintered body  
~~for use at 100°C to 1000°C comprising both of:~~

carbon whose peak cannot be detected on its X-ray diffraction chart or whose peak is  
below its detection limit thereon, said carbon being at least one selected from the group  
consisting of amorphous carbon and carbon forming solid solution in aluminum nitride  
crystal phase; and

crystalline carbon whose peak can be detected on its X-ray diffraction chart,

wherein said carbon and crystalline carbon are in a total amount of 200 to 5000 ppm  
in a matrix of aluminum nitride.

Claim 38 (previously presented): The carbon-containing aluminum nitride sintered  
body according to claim 37,

wherein said matrix contains a sintering aid comprising at least one selected from the  
group consisting of an alkali metal oxide, an alkali earth metal oxide, and a rare earth oxide.

Claim 39 (previously presented): The carbon-containing aluminum nitride sintered  
body according to claim 37,

wherein its brightness defined in JIS Z 8721 is N4 or less.

Claims 40-41 (canceled)

Claim 42 (previously presented): The carbon-containing aluminum nitride sintered  
body according to claim 37,

wherein said carbon-containing aluminum nitride sintered body has a volume  
resistivity of  $10^8 \Omega \cdot \text{cm}$  or more at a temperature of 500°.

Application No. 10/069,943

Reply to Office Action of June 9, 2004

Claims 43-48 (canceled)

Claim 49 (currently amended): The carbon-containing aluminum nitride sintered body according to claim 37, wherein the total amount is 20 to 2000 ppm said carbon and crystalline carbon are in a total amount of 200 to 2000 ppm in a matrix of aluminum nitride.

Claim 50 (canceled)

Claim 51 (currently amended): The carbon-containing aluminum nitride sintered body according to claim 37, having ~~wherein the~~ a blend ratio of said carbon whose peak cannot be detected on its X-ray diffraction chart or whose peak is below its detection limit thereon to said crystalline carbon whose peak can be detected on its X-ray diffraction chart is 1/200 to 200/1 (weight ratio).

Claim 52 (currently amended): The carbon-containing aluminum nitride sintered body according to claim 37, having ~~wherein the~~ a blend ratio of said carbon whose peak cannot be detected on its X-ray diffraction chart or whose peak is below its detection limit thereon to said crystalline carbon whose peak can be detected on its X-ray diffraction chart is 1/100 to 100/1 (weight ratio).

Application No. 10/069,943  
Reply to Office Action of June 9, 2004

### **REMARKS/ARGUMENTS**

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 37-39, 42, 49, 51 and 52 are presently pending in this application, Claims 41 and 47 having been withdrawn from further consideration by the Examiner, Claims 40, 41 and 43-48 and 50 having been canceled, Claims 37, 49, 51 and 52 having been amended by the present amendment.

In the outstanding Office Action, Claims 40, 46, 49 and 50 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter not enabling to one skilled in the relevant art; Claims 49-52 were rejected under 35 U.S.C. §112, second paragraph, for being indefinite; and Claims 43-46, 48 and 50 were rejected under 35 U.S.C. §102(b) as being anticipated by Schwetz et al. (U.S. Patent 4,908,173). However, Claims 49, 51 and 52 were indicated as including allowable subject matter.

First, Applicants acknowledge with appreciation the telephone interviews granted to Applicants' attorney on November 3 and 4, 2004, and the indications that Claims 37-40 and 42 have been allowed and that Claims 49, 51 and 52 would be allowable if amended to overcome the rejections under 35 U.S.C. §112, second paragraph.

Pursuant to the telephone interview, Claims 37, 49, 50 and 51 have been amended herein. As discussed during the telephone interview, Claims 49, 50 and 51 have been amended to clarify the subject matters, and thus are believed to be in compliance with the requirement of the statute. Also, as discussed and acknowledged during the telephone interviews, Claim 37 has been amended solely for the purpose of clarity. Thus, the amendment in Claim 37 is merely cosmetic and is not believed to alter its original scope in any way. Furthermore, Applicants respectfully request that Claims 40, 41, 43-48 and 50 be




Application No. 10/069,943  
Reply to Office Action of June 9, 2004

canceled without prejudice. If, however, the Examiner disagrees with any of the amendments and discussions presented above, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive a mutually agreeable solution and expedite the prosecution of the present application.

In light of the discussions held during the interviews and in view of the amendments and discussions presented above, Applicants respectfully submit that the present application is believed to be in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



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